MULTIMEDIA UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

# FINAL EXAMINATION

**TRIMESTER 3, 2018/2019**

## DCS5111 – COMPUTER SYSTEMS & APPLICATIONS

(DIT)

27 MAY 2019
9:00 a.m. – 11:00 a.m.
(2 Hours)

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**INSTRUCTIONS TO STUDENT**

1. This question paper consists of **4 pages**.
2. Answer **ALL** questions in **Section A** on the **OMR sheet**.
3. Answer **ALL** questions in **Section B** in the **Answer Booklet**.

**Section A: 10 Multiple Choice Questions (10 marks)**

*Instruction: Shade your answers on the **OMR sheet**.*

1. Below are the examples of portable computer **EXCEPT** _____.
   A. netbook
   B. mainframe
   C. laptop
   D. ultrabook

2. Which of the following component is considered for a monitor to work?
   A. Aspect ratio
   B. Resolution
   C. Pixels
   D. All of the above.

3. A _____ prints oversize pictures that require the drawing of precise and continuous lines such as maps and architectural plans.
   A. all-in-one printer
   B. plotter
   C. laser printer
   D. thermal printer

4. Which of the following characteristics is **NOT TRUE** about random access memory (RAM)?
   A. Volatile storage.
   B. Store instructions and data.
   C. Permanent storage.
   D. Entire contents are erased when turn off the computer.

5. A user need to perform _____ to restart a system if the operating system or other software application stops responding.
   A. warm boot
   B. hibernate mode
   C. cold boot
   D. sleep mode

6. Which of the following privacy precautions need to be taken when using social networking sites?
   A. Post the routine of your life such as sport games, work schedules and broadcast to the general public.
   B. Allow anyone to view your personal information.
   C. Set the privacy setting of the images you posted to be viewed by public.
   D. Know who your friends are and set who can see the information you post.

7. _____ requires a program such as Microsoft Outlook to be installed on your computer.
   A. E-mail client
   B. Web-based e-mail
   C. Plain-text e-mail
   D. Milestone e-mail

**Continued...**

8. Pandora, Beat and Spotify are the examples of _____.
   A. Internet radio
   B. Internet video
   C. vlog
   D. audio

9. When consumers sell items to each other through sites such as eBay and Etsy, this is known as _____.
   A. business-to-consumer (B2C)
   B. consumer-to-consumer (C2C)
   C. social commerce
   D. business-to-business (B2B)

10. _____ is saving a favorite website to a social bookmarking site so that you can share it with others.
   A. Tagging
   B. Bookmarking
   C. Sharing
   D. Citing

**Section B: 4 Structured Questions (40 marks)**

*Instruction: Write your answers in the **Answer Booklet**.*

**Question 1**

a) Briefly explain **ONE** function and give **ONE** example for each of the following application software:

   i. Database Software (1.5 marks)
   ii. Personal Information Manager (1.5 marks)

b) There are variety formats of digital audio files stored in the computer such as uncompressed and compressed audio files. State **TWO** differences for each uncompressed and compressed files.

(3 marks)

c) Plug and Play (PnP) allows you to plug a new device into your computer, turn it on and immediately use the device. List **FOUR** examples of PnP devices that are included drivers in Windows.

(2 marks)

d) Jimmy could not boot his computer properly after installed a new software. Suggest **TWO** solutions for him to solve this boot problem.

(2 marks)

**[TOTAL 10 MARKS]**

**Continued...**

**Question 2**

a) CPU is composed of two units. State the **TWO** units and briefly describe **ONE** function for each unit.

(3 marks)

b) Access time on a hard drive is usually the sum of two factors: seek time and latency (or called rotational delay). Differentiate between seek time and latency.

(2 marks)

c) Differentiate between twisted-pair cable, coaxial cable and fiber-optic cable.

(3 marks)

d) Cassy realized that her neighbour is connecting to her home wireless network without her permission. Suggest **FOUR** ways to help her to prevent those illegal wireless network access.

(2 marks)

**[TOTAL 10 MARKS]**

**Question 3**

a) VoIP calls can be placed from anywhere you have Internet access. However, it does have some drawbacks. Identify **TWO** drawbacks of VoIP

(2 marks)

b) Briefly describe what e-reader is and list **TWO** advantages of e-readers.

(3 marks)

c) Briefly discuss on how the following viruses can infect a computer:

i. Logic bomb (1 mark)
ii. Email virus (1 mark)

d) When performing financial transactions online such as banking or buying goods, credit card and bank account information can reside on the hard drive. Briefly explain **TWO** tools that might be used by the hackers to detect the information.

(3 marks)

**[TOTAL 10 MARKS]**

**Question 4**

a) Some of the programmers create algorithms using top-down design. Briefly explain on how top-down design works.

(3 marks)

**Continued...**

b) List **FOUR** factors that a programming team needs to consider before selecting the right language it will use for a specific project.

(2 marks)

c) Differentiate between primary key and foreign key in a database.

(2 marks)

d) Briefly discuss the following data mining techniques:

i. Classification (1 mark)
ii. Estimation (1 mark)
iii. Clustering (1 mark)

**[TOTAL 10 MARKS]**

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